The Need for Computer Science in Elementary Schools

In the next ten years there will be more than 1 million unfilled technology jobs in the United States. In Washington State alone, more than 25,000 employees are imported each year to fill STEM jobs that currently cannot be filled. However, only ten percent of K-12 schools teach computer science. To combat this shortage and be globally competitive, Spokane Public Schools aims to incorporate computer coding at every elementary school in the district.

Computers are involved in nearly every industry in every country, and the importance of computers is growing each year. Because of this, computer coding and app development skills will make our students more competitive in all fields. Educating students about computer sciences will help create the edge our district needs to prepare all students for some form of technical, two year, or four year college (T-2-4) by the time they graduate from high school. By providing computer science education to all elementary students in an afterschool setting, Spokane Schools is creating workforce ready students that are prepared for the 21st century.

The computer science afterschool programs being provided have two curriculums. One curriculum is for students Kindergarten through third grade; and one curriculum is for students fourth through sixth grade. Both curriculums were created with the intent to teach students how to computer code, as every industry is impacted by this skill. The two curriculums are based on lesson plans provided by Code.org, a nonprofit organization dedicated to teaching computer science to every student in every school. Code.org is a free website that is game based and makes learning how to code computers fun and engaging. Along with the Code.org lesson plans, each curriculum includes codeable robots, educational books, and technology that teaches about circuitry and electricity.

By allowing students access to this learning at a young age, they will learn problem solving and persistence skills, and be more apt to succeed in every area of life as they get older. With the average computer science salary starting out at $80,000 per year in Spokane, students will be able to provide for themselves and their families. There will no longer be a need to import people to fill computer science jobs in Washington State as companies will be able to employ educated and skilled Spokane Public Schools graduates. These graduates will continue to build the economic workforce and keep the United States economy thriving for years to come.